

REMARKS

Claims 1, 3-8, 22-25 and 27 are pending in the above-identified application. Claim 2 has been incorporated into claim 1 and some of the claims have been further amended in order to improve the form thereof. Claims 2, 9-21, 26 and 28 have been cancelled.

Information Disclosure Statements Issues

The Office Action of March 18, 2009 indicates at page 2 thereof that the documents WO 99/02586 and JP 6-25446 require English translations. In this regard, it is noted that the Information Disclosure Statement (IDS) filed March 23, 2007 states at page 2 thereof that EP 0 559 437 corresponds to JP 6-25446, and that US Patent 6,429,157 corresponds to WO 99/02586, with each of the former documents being in the English language. Thus, it appears that English translations documents are not needed as corresponding patent family members have been submitted. Concerning JP 2767329, Applicant submits with this Amendment another IDS providing the same. It is not known if a scanning error on the part of the USPTO or if an error on the part of Applicant resulted in the failure of the USPTO file to include this reference.

Removal of Rejection under 35 USC 112

Claim 8 has been rejected under 35 USC 112, as being indefinite because of insufficient antecedent basis for the phrase “the volatile component”. Claim 8 has been amended in order to provide for proper antecedent basis for all of the terms recited therein. Thus, it is requested that this rejection be withdrawn.

Removal of Rejection under 35 USC 102(b)

Claims 9-14, 17-20, 24 and 25 have been rejected under 35 USC 102(b) as being anticipated by Ozaki '794 (US 6,027,794). Claims 9-14 and 17-20 have been cancelled. Claim 24 has been amended so as to depend from claim 1 which was not rejected. Claim 25 continues to depend from claim 24. Thus, all the bases for this rejection have been removed such that this rejection should be withdrawn.

Issues under 35 USC 103(a)

Claims 1-3 and 5-7 have been rejected under 35 USC 103(a) as being unpatentable over Kishi '437 (EP 0 559 437) in view of Sugimori '006 (US 6,670,006).

Claims 1-4 and 7 have been rejected under 35 USC 103(a) as being obvious over Kouchi '206 (WO 03/040206) in view of Kishi '437.

Claims 15 and 16 have been rejected under 35 USC 103(a) as being obvious over Ozaki '794.

Claims 21-23 have been rejected under 35 USC 103(a) as being obvious over Ozaki '794 in view of Zhou '052 (US 2002/0079052).

Claims 26 and 28 have been rejected under 35 USC 103(a) as being obvious over Ozaki '794 in view of Kishi '437 and further in view of Sugimori '006.

Claims 26 and 28 have been rejected under 35 USC 103(a) as being obvious over Ozaki '794 in view of Kouchi '206 and further in view of Kishi '437.

Claim 27 has been rejected under 35 USC 103(a) as being obvious over Zhou '052 and further in view of Kouchi '206 and Kishi '437.

All of the above-noted rejections are traversed based on the following reasons.

Present Invention and Its Advantages

The present invention is directed to an epoxy resin composition which includes an epoxy resin (a) having oxazolidone rings, an epoxy resin (b) which is a glycidylamine type epoxy resin, and a solid rubber component as recited in claim 1, for example. As noted in paragraph [0015] of the present specification, this combination of components provides for advantageously improved properties, including improved drapability and self-adhesiveness, while maintaining sufficient tackiness. Further, evidence is provided showing comparisons between Examples 1-5 (present invention) and Comparative Example 1 (oxazolidinone ring-containing epoxy resin absent) and Comparative Example 2 (glycidylamine type epoxy resin absent), and is summarized in Table 1 and described at pages 63-85 of the present specification. In this regard, note that Examples 1-5 exhibited improved peel and compressive strength properties over Comparative Examples 1 and 2 as described at pages 79-80. Also, Examples 1-5 compared favorably against Comparative Example 3 (absence of solid rubber component) as shown in Table 1 with respect

to tackiness and drapability. As indicated below, all of the cited references fail to disclose any examples having the claimed combination of features mentioned above and recited in the present claims.

Distinctions over Cited References

Kishi '437 discloses a resin composition for a prepreg which includes an epoxy resin, a curing agent and a solid rubber component, wherein the epoxy resin is a glycidylamine type epoxy resin. Kishi '437 fails to disclose a resin composition which additionally includes an oxazolidinone ring-containing epoxy resin as in the present invention. Thus, significant patentable distinctions exist over Kishi '437. Further, even if *prima facie* obviousness has been properly alleged based on Kishi '437, such obviousness has been rebutted based on the evidence of comparative test results discussed above as described in the present specification.

Sugimori '006 discloses an epoxy resin composition which includes (A) a bisphenol A-type epoxy resin, (B) an epoxy resin having oxazolidone rings, (C) a curing agent, an optional (D) thermoplastic resin, and an optional additional epoxy resin (E). A list of categories of possible resins (E) is described at col. 6, lines 51-62, and includes, for example, bisphenol F-type, bisphenol S-type, glycidylamine-type, aminophenol-type, phenolic novolak-type, etc. The "phenolic novolak-type" epoxy resins are "particularly preferable". Sugimori '006 discloses examples and comparative examples at columns 13-30. Most examples do not include component (E), and all that do include (E) use a phenolic novolak resin.

Sugimori '006 fails to disclose a resin composition that contains a solid rubber component as in the present invention. Sugimori '006 further fails to disclose any resin composition examples that include a glycidylamine type epoxy resin component as required by the present invention. Sugimori '006 fails to disclose or suggest any advantageous properties associated with the combination of a glycidylamine type epoxy resin component in combination with the other components of the present invention as recited in the present claims. Although, a glycidylamine type epoxy resin component is mentioned as one possible optional component (E) in Sugimori '006, it is not preferred and is not found in any of the disclosed examples so as to suggest to one skilled in the art that it is one of a wide variety of possible selections without any

suggestion that it could be used to improve any properties. Thus, significant patentable distinctions exist over Sugimori '006. Further, even if *prima facie* obviousness has been properly alleged based on Sugimori '006, such obviousness has been rebutted based on the evidence of comparative test results discussed above as described in the present specification which show the necessity for not only a solid rubber component, but also a glycidylamine type epoxy resin.

In addition, there fails to be an adequate basis to combine Sugimori '006 with Kishi '437, since there fails to be any adequate explanation as to why one skilled in the art would selectively combine components from each of the disclosed compositions, while ignoring the fact that Sugimori '006 employs no solid rubber, whereas Kishi '437 requires such a component. In addition, the failure of both of these documents to recognize the advantages of the present invention as noted above further undermines any attempt to combine these together.

Kouchi '206 corresponds to Kouchi '882 (US 2004/0247882). Kouchi '206/'882 fails to disclose a resin composition which includes a solid rubber component as in the present invention. It appears that an attempt to employ a solid rubber in the composition of Kouchi '206/'882 would be inconsistent with the stated objective of improving elastic modulus (see paragraph [0015]), since, as is well known in the art, the addition of rubber to such compositions will generally lower the elastic modulus properties. Although Kouchi '206/'882 discloses the possibility of using an oxazolidinone ring-containing epoxy resin, no examples of the combination of this component with a glycidylamine type epoxy resin are disclosed. Thus, essentially the same distinctions noted above with respect to Sugimori '006 also apply to Kouchi '206/'882 and are deemed repeated herein. In addition, the same reasons noted above that undermine an attempt to combine Sugimori '006 with Kishi '437 also undermine the attempt to combine Kouchi '206/'882 with Kishi '437. Thus, significant patent distinctions exist over Kouchi '206/'882, whether taken alone or improperly combined with Kishi '437.

Both Ozaki '794 and Zhou '052 are cited in support of rejections as noted above. However, both of these references fail to disclose or suggest the use of element [C], i.e. a thermoplastic resin having openings and a continuous form as recited in claim 22, for example. Further, these references fail to disclose or suggest the resin composition of the present invention

as recited in claim 1 from which claims 24 and 25 have been amended to depend. Thus, significant patent distinctions exist over both Ozaki '794 and Zhou '052, such that the rejections based thereon should be removed.

In view of the above, it is submitted that the present claims define patentable subject matter such that all of the above rejections should be withdrawn.

If any questions arise in the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By _____

Andrew D. Meikle
Registration No.: 32,868
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant

Enclosure: Information Disclosure Statement